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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/767,633 | 01/29/2004 | Richard S. Smith | 59503US002 | 5407 |

32692 7590 01/25/2006

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| EXAMINER | |
|---|---|
| MARCHESCHI, MICHAEL A | |
| **ART UNIT** | **PAPER NUMBER** |
| 1755 | |

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/767,633 | SMITH ET AL. | |
| | Examiner | Art Unit | |
| | Michael A. Marcheschi | 1755 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) *16* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☒ Claim(s) *7 and 8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/12/04,4/18/05*.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-15, drawn to composition and method of making it, classified in class 106, subclass 3.

II. Claims 16, drawn to method or polishing, classified in class 451, subclass 28.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the process for using the product as claimed can be practiced with another materially different product, such as one that does not rely on the claimed components.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Douglas B. Little on 9/22/05 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-15. Affirmation of this election must be made by applicant in replying to this Office action. Claim 16 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claims 7-8 are objected to because of the following informalities:

Claims 7-8 are objected to because "abrasive particles is" should be "abrasive particles **are**" (line 1 of claim 7).

Appropriate correction is required.

Claims 12-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 is indefinite as to the limitation "an emulsifier effective to create a stable emulsion **comprising the volatile cyclic siloxane; and**" because this limitation does not clearly

define the emulsion. The claim defines other components (i.e. solvent) and are these other components part of the emulsion? This should be changed to "**an emulsifier; and**".

Claim 13 is indefinite because it depend on an indefinite claim

Claim 14 is indefinite because the limitation "the abrasive particles" lacks antecedent basis since "abrasive particles" have not been literally defined in claim 12. Claim 12 defines aluminum oxide and not abrasive particles, in general.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5 and 7-8 are rejected under 35 U.S.C. 102(b) as anticipated Kasprzak.

Kasprzak teaches in column 2, lines 7-60, column 3, lines 25-48 and the claims, a polishing composition comprising an abrasive (particular one chosen will depend on nature of

surface to be polished and results desired), 5-60 wt.% of a volatile cyclic siloxane (cyclooctamethyltetrasiloxane (same as one of the claimed siloxanes)), wax (reads on a lubricant), 30-95 wt% water and 0.5-5 wt.% of a surfactant (emulsifier). Claim 1 states that other materials commonly employed in polishes can be used (i.e. solvents, thickeners). Column 2, lines 28-33 states that solvents (i.e. these are volatile hydrocarbons) are commonly employed in polishing formulations.

The claimed invention is anticipated by the reference because the reference teaches a composition which comprises all of the claimed components.

Claim 6 is rejected under 35 U.S.C. 103(a) as obvious over Kasprzak in view of Ogawa.

Ogawa teaches in column 2, lines 12-14 and column 3, lines 10-13 conventional sizes for abrasives (alumina) when used in polishing formulations.

The size of the abrasive is obvious because the primary reference utilizes an abrasive and although the size is not specifically defined, one skilled in the art would have found the size of the abrasive to be dependent on the results desired, as is clearly suggested by the primary reference in column 2, lines 22-23. In addition, although not defined by the primary reference, this is obvious because the primary reference implies that the abrasive is dependent on the application and results desired and it is the examiners position that the lack of an abrasive size implies that any conventional size for the abrasive can be used as long as it provides the necessary abrasive action. In view of this, one skilled in the art would have found it obvious to use any known conventional abrasive size, such as the size defined by the secondary reference, as the abrasive particles size according to the primary reference because this abrasive particle

size is conventionally known to provide the necessary abrasive action in polishing compositions (one skilled in the art would have appreciated the size required to achieve polishing, said size being conventional in the art, as is clearly shown by the secondary reference). Finally, one skilled in the art would have also known by routine experimentation and optimization the desired abrasive size needed to produce the desired abrasive character of the reference polishing composition.

Claims 9-11 are rejected under 35 U.S.C. 103(a) as obvious over Kasprzak in view of Sejpka et al.

Sejpka et al. teaches in the abstract and column 5, lines 49-51 and column 6, line 67-column 7, line 2 conventional amounts for abrasive and wax materials that are known to be added to polishes similar to the polish of the primary reference.

The primary reference teaches a broad composition comprising all of the claimed components, wherein the broad composition contains the claimed amount of volatile cyclic siloxane and water (these amounts literally defined for the broad composition).

With respect to the abrasive and lubricant (wax) concentrations, the primary reference specifically teaches that these can be added and it is the examiners position that this would imply to the skilled artisan that the amounts used are generally known to be conventional amounts as employed in the polishing art. In view of this, the amounts for abrasive and lubricant (wax) components in the composition according to the primary reference would have been obvious because the secondary reference teaches that the claimed amounts are conventionally known concentrations to be used in polishes based on similar components. When viewing the primary

reference as a whole and specifically the statements "ingredients normally used to make polishes" and "depending on the use and properties (results) sought desired", one skilled in the art would have appreciated that these conventional additives can be added in conventional amounts.

Claim 12-13 are rejected under 35 U.S.C. 103(a) as obvious over Kasprzak in view of Ogawa.

The primary reference teaches a composition that comprises all of the claimed components and although this reference does not define that the abrasive is alumina, one skilled in the art would have found the type of the abrasive to be dependent on the results desired, as is clearly suggested by the primary reference in column 2, lines 22-23. In addition, although not defined by the primary reference, this is obvious because the primary reference implies that the abrasive is dependent on the application and results desired and it is the examiners position that the abrasives defined are only examples and thus the reference is not limited to these. In view of this, one skilled in the art would have found it obvious to use any known conventional abrasive, such as the one defined by the secondary reference, as the abrasive particles according to the primary reference because this abrasive particle is conventionally known to provide the necessary abrasive action in polishing compositions (one skilled in the art would have appreciated the abrasive required to achieve polishing, said abrasive being conventional in the art, as is clearly shown by the secondary reference).

Claim 14 is rejected under 35 U.S.C. 103(a) as obvious over Kasprzak in view of Sejpka et al.

Sejpka et al. teaches in the abstract and column 5, lines 49-60 and column 6, line 67-column 7, line 2 conventional amounts for abrasive, wax and thickener materials that are known to be added to polishes similar to the polishing of the primary reference.

The primary reference teaches a broad composition comprising all of the claimed components, wherein the broad composition contains the claimed amount of volatile cyclic siloxane, water and surfactant (emulsifier). The amounts literally defined for the broad composition.

With respect to the abrasive, lubricant (wax) and thickener concentrations, the primary reference specifically teaches that these can be added and it is the examiners position that this would imply to the skilled artisan that the amounts used are generally known to be conventional amounts as employed in the polishing art. In view of this, the amounts for abrasive, lubricant (wax) and thickener components in the composition according to the primary reference would have been obvious because the secondary reference teaches that the claimed amounts are conventionally known concentrations to be used in polishes based on similar components. When viewing the primary reference as a whole and specifically the statements "ingredients normally used to make polishes" and "depending on the use and properties (results) sought desired", one skilled in the art would have appreciated that these conventional additive can be added in conventional amounts. With respect to the amount of solvent, the primary reference teaches that this component can be present and although an amount is not defined for the broad composition, the examples all show utilization of a solvent in a specific amount. Although the examples are to

specific formulas, the broad usage of solvents in amounts similar to the amounts defined in the examples for the broad composition of the primary reference would have been envisioned and therefore obvious to the skilled artisans. In addition, the amount of solvent would have been obvious in order to maximize the homogeneity of the composition through routine experimentation and optimization.

Claims 15 is rejected under 35 U.S.C. 103(a) as obvious over Kasprzak

The reference teaches a composition which is made by mixing all of the components together and although the process might not be in two separate stages (the emulsification step and the mixing (combining with abrasives)), no distinction is seen to exist because the change in sequence of adding ingredients would have been obvious to one of ordinary skill in the art absent evidence to the contrary. *In re Gibson* 5 USPQ 230. In addition, it is the examiners position that the initial formation of an emulsion would have been obvious to the skilled artisan in order to maximize the homogeneity of water, siloxane and lubricant (wax) prior to the addition of the abrasive.

Claims 1-4 and 7-8 are rejected under 35 U.S.C. 102(b) as anticipated Sejpka et al.

Sejpka et al. teaches in column 2, lines 47-50, column 4, lines 54-63, column 6, line 15-column 7, line 29, a polishing composition comprising an abrasive, a volatile cyclic siloxane (same as the claimed siloxanes), wax (reads on a lubricant), water, an emulsifier, solvent and a thickener.

The claimed invention is anticipated by the reference because the reference teaches a composition which comprises all of the claimed components.

Claim 5 is rejected under 35 U.S.C. 103(a) as obvious over Sejpka et al. in view Kasprzak.

With respect to the solvent, the primary reference states that this can be present and although a volatile hydrocarbon is not defined, it is the examiners position that one skilled in the art would have found the use of this material obvious as the solvent because Kasprzak teaches that is type of solvent is conventionally known to be used in polishes based on similar components. In other words, it is the examiners position that the lack of an specific solvent implies that any conventional solvent for polishes can be used as long as it provides the necessary action. In view of this, one skilled in the art would have found it obvious to use any known polishing composition solvents, such as the one defined by Kasprzak, as the solvent according to the primary reference because this solvent is conventionally known to provide the necessary action in polishing compositions (one skilled in the art would have appreciated the solvent required, said solvent being conventional in the art).

Claim 6 is rejected under 35 U.S.C. 103(a) as obvious over Sejpka et al. in view of Ogawa.

The size of the abrasive is obvious because the primary reference utilizes an abrasive and although the size is not specification defined, one skilled in the art would have found the size of the abrasive to be dependent on the results desired. In addition, although not defined by the

primary reference, this is obvious because it is the examiners position that the lack of an abrasive size implies that any conventional size for the abrasive can be used as long as it provides the necessary abrasive action. In view of this, one skilled in the art would have found it obvious to use any known conventional abrasive size, such as the size defined by the secondary reference, as the abrasive particles size according to the primary reference because this abrasive particles size is conventionally known to provide the necessary abrasive action in polishing compositions (one skilled in the art would have appreciated the size required to achieve polishing, said size being conventional in the art, as is clearly shown by the secondary reference). Finally, one skilled in the art would have also known by routine experimentation and optimization the desired abrasive size needed to produce the desired abrasive character of the reference polishing composition.

Claim 12-13 are rejected under 35 U.S.C. 103(a) as obvious over Sejpka et al. in view of Ogawa and Kasprzak.

The primary reference teaches a composition that comprises all of the claimed components and although this reference does not define that the abrasive is alumina, one skilled in the art would have found it obvious to use any known conventional abrasive, such as the size defined by Ogawa, as the abrasive particles according to the primary reference because this abrasive particles is conventionally known to provide the necessary abrasive action in polishing compositions (one skilled in the art would have appreciated the abrasive required to achieve polishing, said abrasive being conventional in the art, as is clearly shown by Ogawa). The primary reference only defines examples of abrasive and thus the reference is not limited to

these. With respect to the solvent, the primary reference states that this can be present and although a volatile hydrocarbon is not defined, it is the examiners position that one skilled in the art would have found the use of this material obvious as the solvent because Kasprzak teaches that is type of solvent is conventionally known to be used in polishes based on similar components. In other words, it is the examiners position that the lack of an specific solvent implies that any conventional solvent for polishes can be used as long as it provides the necessary action. In view of this, one skilled in the art would have found it obvious to use any known polishing composition solvents, such as the one defined by Kasprzak, as the solvent according to the primary reference because this solvent is conventionally known to provide the necessary action in polishing compositions (one skilled in the art would have appreciated the solvent required, said solvent being conventional in the art).

Claims 15 is rejected under 35 U.S.C. 103(a) as obvious over Sejpka et al.

The reference teaches a composition which is made by mixing all of the components together and although the process might not be in two separate stages (the emulsification step and the mixing (combining with abrasives)), no distinction is seen to exist because the change in sequence of adding ingredients would have been obvious to one of ordinary skill in the art absent evidence to the contrary. *In re Gibson* 5 USPQ 230. In addition, it is the examiners position that the initial formation of an emulsion would have been obvious to the skilled artisan in order to maximize the homogeneity of water and lubricant (wax) prior to the addition of the abrasive.

In view of the teachings as set forth above, it is the examiners position that the references reasonably teach or suggest the limitations of the rejected claims.

**A reference is good not only for what it teaches but also for what one of ordinary skill might reasonably infer from the teachings.** ***In re Opprecht*** **12 USPQ 2d 1235, 1236 (CAFC 1989);** ***In re Bode*** **USPQ 12;** ***In re Lamberti*** **192 USPQ 278;** ***In re Bozek*** **163 USPQ 545, 549 (CCPA 1969);** ***In re Van Mater*** **144 USPQ 421;** ***In re Jacoby*** **135 USPQ 317;** ***In re LeGrice*** **133 USPQ 365;** ***In re Preda*** **159 USPQ 342 (CCPA 1968). In addition, "A reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments" See** ***In re Van Marter*****, 144 USPQ 421.**

**A generic disclosure renders a claimed species prima facie obvious.** ***Ex parte George*** **21 USPQ 2d 1057, 1060 (BPAI 1991);** ***In re Woodruff*** **16 USPQ 2d 1934;** ***Merk & Co. v. Biocraft Lab. Inc.*** **10 USPQ 2d 1843 (Fed. Cir. 1983);** ***In re Susi*** **169 USPQ 423 (CCPA 1971).**

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, see ***In re Malagari*****, 182 U.S.P.Q. 549;** ***In re Wertheim*** **191 USPQ 90 (CCPA 1976).**

Evidence of unexpected results must be clear and convincing. *In re Lohr* 137 USPQ 548. Evidence of unexpected results must be commensurate in scope with the subject matter claimed. *In re Linder* 173 USPQ 356. To establish unexpected results over a claimed range, applicants should compare a sufficient number of tests both inside and outside (i.e. as well as the upper and

lower limits) the claimed range to show the criticality of the claimed range. ***In re Hill 284 F.2d 955, 128 USPQ 197 (CCPA 1960).***

The additional references cited on the 1449 have been reviewed by the examiner and are considered to be art of interest since they are cumulative to or less than the art relied upon in the above rejections.

Any foreign language documents submitted by applicant has been considered to the extent of the short explanation of significance, English abstract or English equivalent, if appropriate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

10/05
MM

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